

August 12, 2003

MEMORANDUM TO: L. Raghavan, Chief, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

FROM: Darl S. Hood, Senior Project Manager, Section 1  
Project Directorate III /RA/  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

SUBJECT: MEETING BETWEEN THE NUCLEAR REGULATORY COMMISSION  
STAFF AND STAKEHOLDERS CONCERNING NRC BULLETIN  
2003-01, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON  
EMERGENCY SUMP RECIRCULATION AT PRESSURIZED-WATER  
REACTORS" (TAC NO. MA6454)

On June 30, 2003, the Nuclear Regulatory Commission (NRC) staff met with the Nuclear Energy Institute (NEI), utility groups, and other stakeholders at NRC headquarters concerning NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors" (ADAMS Accession No. ML031600259) dated June 9, 2003. Attachment 1 lists the meeting attendees. A public meeting notice was issued on June 12, 2003, and was posted on the NRC's external (public) web page (ADAMS Accession No. ML031630026). The notice included the meeting agenda, which was also available as a handout at the meeting.<sup>1</sup>

Attachment 2 is a copy of the slides used during the NRC staff's presentations, which included the status of related Generic Safety Issue (GSI)-191, "Assessment of Debris Accumulation on PWR Sump Performance";<sup>2</sup> and a review of the bulletin's contents. Following the presentations, the NRC staff responded to questions from attendees regarding the bulletin.

The NRC issued Bulletin 2003-01 to operating pressurized-water reactor (PWR) licensees to (1) inform them of the results of NRC-sponsored research identifying the potential susceptibility of PWR recirculation sump screens to debris blockage in the event of a high-energy line break requiring recirculation operation of the emergency core cooling system (ECCS) or containment

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<sup>1</sup> The notice and meeting are in accordance with the statement in the bulletin (page 8) that "Approximately two weeks after the issuance of this bulletin, the NRC plans to hold a public meeting to further clarify the intent of the bulletin and respond to any questions from addressees regarding the bulletin. The NRC plans to publish the notice for this public meeting promptly after the bulletin is issued."

<sup>2</sup> The June 30, 2003, meeting was followed by a related public meeting on July 1, 2003, to discuss GSI-191. The July 1, 2003, meeting is addressed by a separate meeting summary (ADAMS Accession No. ML032060420).

spray system (CSS); (2) inform them of the potential for additional adverse effects due to debris blockage of flowpaths necessary for ECCS and CSS recirculation and containment drainage; (3) request that they confirm their compliance with 10 CFR 50.46(b)(5) and other existing applicable regulatory requirements, or describe any compensatory measures implemented to reduce the potential risk due to post-accident debris blockage as evaluations to determine compliance proceed; and (4) require them to provide the NRC a written response in accordance with 10 CFR 50.54(f) within 60 days of the date of the bulletin.

In advance of the public meeting, NEI had forwarded 73 industry questions and comments on the bulletin to the NRC on June 20, 2003 (ADAMS Accession No. ML031970112). The NRC staff provided written draft responses to these questions as a meeting handout (ADAMS Accession No. ML031810371). The NRC staff explained that the available time did not provide for written responses to a few of the industry's questions, but that all questions that the industry had identified as being of high priority were addressed. The meeting discussions consisted largely of a review and explanation of these written responses. The NRC staff noted that the written draft responses would be updated/modified, as appropriate, based upon the meeting discussions and would be available in ADAMS in final form in the near future.

#### Public Participation

Mr. D. Lochbaum of the Union of Concerned Scientists asked if issuance of the bulletin would have a delaying effect upon completion of GSI-191. The NRC staff replied that it did not currently foresee any delaying impact because the bulletin is intended to address near-term interim compensatory measures, and that such impact, if any, should be minimal.

Attachments: 1. Meeting Attendees  
2. NRC Presentation Slides on NRC Bulletin 2003-01

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ADAMS Accession No. ML032110559 (Meeting Summary)

ADAMS Accession No. ML031810366 (Attachment 2)

ADAMS Accession No. ML032110572 (Package)

OFFICIAL RECORD COPY

LIST OF ATTENDEES

MEETING REGARDING NRC BULLETIN 2003-01,

“POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY

SUMP RECIRCULATION AT PRESSURIZED-WATER REACTORS”

MONDAY, JUNE 30, 2003

<u>NAME</u>	<u>TITLE</u>	<u>ORGANIZATION</u>
D. Hood	Sr. Proj. Mgr.	NRC/NRR/DLPM
S. Black	Director	NRC/NRR/DSSA
J. Lehning	Gen. Engineer	NRC/NRR/DSSA
R. Architzel	Sr. Reactor Eng.	NRC/NRR/DSSA
J. Hannon	Branch Chief, SPLB	NRC/NRR/DSSA
R. Eckenrode	Sr. Human Factors Eng.	NRC/NRR/DIPM
R. Mathew	Engineer	NRC/NRR/DIPM
B. Jain	Proj. Mgr.	NRC/RES/DET
C. Hunter	Engineer	NRC/RES/DRAA
G. DeMoss	Engineer	NRC/RES/DRAA
J. Cai	Risk Analyst	NRC/NRR/DIPM
W. Lyon	Sr. Reactor Syst. Engr.	NRC/NRR/DSSA
M. Barillas	Reactor Eng.	NRC/NRR/DSSA
P. Henry	General Eng.	NRC/NRR/DSSA
C. Long	General Eng.	NRC/NRR/DSSA
D. Harrison	Engineer	NRC/NRR/DSSA
S. Burnell	Public Affairs Officer	NRC/OPA
J. Butler	Sr. Proj. Mgr.	Nuclear Energy Institute
T. Pietrangelo	Sr. Director	Nuclear Energy Institute
T. Andreychek	Principal Engineer	Westinghouse
M. Dinger	Engineer	WCNOC/WOG
M. Cox	Supv. Mech./Civil Design	CEG
M. Kastelwik	Proj. Mgr.	CEG
A. Drake	Engineer	CEG
R. Hermann	Associate	Structural Integrity
K. Anstee	Civ. Eng. Consultant	Constellation Gen. Group
K. Kishioka	Washington Representative	Japan Atomic Power Co.
K. Leonelli	Mech. Engineer	SCE&G
P. Bunker	Sr. Supervision Engr.	Parsons E&G
R. Masofro	System Engineer	AmerGen Energy Co.
M. McGawn	Lic. Engineer	Southern California Edison
P. Blakestue	Mgr.	Southern California Edison
A. Smith	Proj. Mgr.	Enercon Services

<u>NAME</u>	<u>TITLE</u>	<u>ORGANIZATION</u>
J. Cavallo	Vice President	CCC&L Inc.
G. Sutoriano	Design Engineer	Pacific Gas & Elect.
M. Friedman	Design Engineer-Nuclear	Omaha Pub. Power Dist.
J. Hoffman	Plant Engineer Mgr.	Florida Power & Light
M. Goth	Engineer	Florida Power & Light
T. Schultz	Sr. Engineer	Florida Power & Light
N. Chapman	SERCH Manager	SERCH/Bechtel
R. Bryan	Engineering Director	ENERCON
K. Kopecky	Licensing Engr.	Southern Nuclear
P. Mast	President	ITS Corp.
G. Zigler	Sr. Engineer	ITS Corp.
R. Oakley	Sr. Eng.	Duke Energy
G. Kent	Lic. Engineer	Duke Energy
C. Hunter	Proj. Mgr.	Exelon Corp.
T. Austin	Principal Engr.	Progress Energy
K. Heffner	Lead Engineer	Progress Energy
W. McGom	Engineer	Progress Energy
J. Hufnagel	Licensing Mgr.	Exelon Corp.
B. Canfield	Licensing Engr.	Exelon Corp.
J. Bleigh	Engineered Sys. Mgr.	Performance Contracting, Inc.
C. Harrington	Consulting Engr.	TXU Energy
A. Bilanin	President	Continuum Dynamics, Inc.
A. Singh	Project Director	Sargent & Lundy
S. Delmatte	Project Director	Sargent & Lundy
G. Geaney	Consulting Engr.	MPR Associates
P. Willoughey	Licensing Lead-Millstone	Dominion Resource Services
D. Knee	Safety Analysis Engr.	Dominion
H. Fontecilla	Reg. Affairs Adviser	Dominion
B. Mickatarage	Design Engineer	American Elect. Power-Cook
R. DeCento	Sr. Engineer	Dominion Nuclear
M. Sollie	Regional Proj. Mgr.	TR Furco Pproducts, Inc.
D. Eggett	Sr. Mgmt/Nuc. Bus. Mgr.	AES Corp.
D. Lounsbury	OPS/WOG	PSEG Nuclear
H. Berrick	Licensing Engr.	PSEG Nuclear
M. Danar	Engineer	PSEG Nuclear
D. Salter	Sr. Mgr.	HGP, Inc.
C. Mart	Consulting Engineer	representing PCI
N. Musher	Licensing Mgr.	Entergy
J. Russo	Design Engr.	Entergy
K. Kingsley	Licensing Eng.	Entergy
M. Carlson	Program Eng. Mgr.	Nuclear Management Co.
G. Areul		Nuclear Management Co.

<u>NAME</u>	<u>TITLE</u>	<u>ORGANIZATION</u>
J. Brown	Sr. System Engr.	Arizona Public Service Co.
D. Wilson	Engineer	Rochester Gas & Elect.
James Dunne	Sr. Engineer	Rochester Gas & Elect.
G. Tesfaye	Sr. Engineer	Calvert Cliffs Nuc. Pow. PI-I
B. Bryan	Chief Mech./Nuclear Eng.	Tennessee Valley Authority
H. Williams	Project Mgr.	Framatome-ANP
D. Raleigh	Client Mgr.	Lis. Sciencetech
D. Lochbam	Nuclear Safety Eng.	Union of Concerned Scientists

NRR = Office of Nuclear Reactor Regulation  
DLPM = Division of Licensing Project Management  
DSSA = Division of Systems Safety and Analysis  
DE = Division of Engineering  
DIPM = Division of Inspection Program Management  
RES = Office of Nuclear Regulatory Research  
DET = Division of Engineering Technology  
DRAA = Division of Risk Analysis and Applications